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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,126	07/09/2004	Stephen Ray Foor	BA9297USPCT	5564

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David E Heiser
E I du Pont de Nemours & Company
Legal Patents
Wilmington, DE 19898

EXAMINER	
SASAN, ARADHANA	
ART UNIT	PAPER NUMBER
1615	
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07/19/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/501,126	FOOR ET AL.	
	Examiner	Art Unit	
	ARADHANA SASAN	1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 May 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-7,9,11,17,18,20,21 and 24-32* is/are pending in the application.

4a) Of the above claim(s) *9,11,18,20,21 and 24-28* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-7,17 and 29-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Application

1. The remarks filed on 05/12/10 are acknowledged.

2. Claims 1-2, 4-7, 9, 11, 17, 18, 20, 21, and 24-31 are currently pending.

3. Claims 3, 8, 10, 12-16, 19, and 22-23 were cancelled.

4. Claims 9, 11, 18, 20, 21, and 24-28 are withdrawn from consideration as being drawn to nonelected inventions and species, there being no allowable generic or linking claim.

5. Claims 1, 2, 4-7, 17, and 29-31 are included in the prosecution.

Election by Applicant

6. On 05/12/10 Applicant elected with traverse (in response to the lack of unity mailed 11/12/09) the following:

- Group I
- 2,6- dichloro-N-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide as the species of Formula I
- The combination in composition 2 (as in point 10, subpart 2 on Page 6 of the office action mailed 11/12/09) comprising:
    - (i) (a) at least one compound of Formula I
    - (ii) (b) at least one compound selected from (b2), and
    - (iii) (b6)

Response to Arguments regarding Lack of Unity

7. Applicant's arguments with respect to the lack of unity and the election of Group I, see Page 2, filed 05/12/10, have been fully considered but are not persuasive. Applicant disagrees that the combination of component (a) and component (b2) would have been obvious to one of ordinary skill in the art in view of U.S. 6,503,933 and U.S. 6,066,638. Applicant argues that Col. 68, lines 58-64 of Bereznak et al. does not suggest combining famoxadone, or any other (b2) compound, with a component (a) compound; and that instead this disclosure is limited to a discussion of combinations including certain fungicidal fused- ring pyrimidinones that are not structurally related to component (a) compounds of the present invention that include both a substituted pyridinyl ring and a substituted phenyl ring that are structurally separated from each other. Applicant argues that while Col. 3, lines 29- 32 of Moloney et al. indicates generally that the compositions can comprise other actives, it does not specifically disclose famoxadone or any other (b2) compound or suggest that (b2) compounds should be combined and that Moloney et al. does not disclose or suggest that combinations with (b2) compounds will provide advantageous results as disclosed by Applicants. Applicant argues that the Moloney et al. passage merely suggests to one of ordinary skill that the compositions could be formulated with other actives or could be formulated without other actives, without suggesting whether either alternative should be selected.

This is not persuasive because the composition of formula I(a) as taught by Moloney, can include additional active ingredients such as compounds with fungicidal

properties. Bereznak teaches the advantage of combining compounds with fungicidal properties. "It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." Please see MPEP 2144.06. One of ordinary skill in the art would find it obvious to use 2,6-dichloro-N-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide, as disclosed by Moloney, and combine it with the "agricultural protectant" famoxadone (5-methyl-5-(4-phenoxyphenyl)-3-phenylamino-2, 4-oxazolidinedione) and the fungicide metalaxyl, as taught by Bereznak, and produce the instant invention because both Moloney and Bereznak teach compounds for fungicidal compositions.

Therefore, the lack of unity of 11/12/09 is maintained.

MAINTAINED REJECTIONS:

The following is a list of maintained rejections:

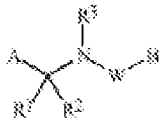
Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1, 2, 4-7, 17, and 29-31 **remain** rejected under 35 U.S.C. 103(a) as being unpatentable over Moloney et al. (US 6,503,933) in view of Bereznak et al. (US 6,066,638), and further in view of Jordan et al. (Pesticide science 55:105-118 (1999).

The elected invention is a composition for controlling plant diseases caused by fungal plant pathogens comprising: (a) at least one compound of formula I of claim 1, N-oxides and agriculturally suitable salts thereof



I

wherein

A is a substituted pyridinyl ring;

B is a substituted phenyl ring;

W is C=L or SO_n;

L is O or S;

R^1 and R^2 are each independently H; or C_1-C_6 alkyl, C_2-C_6 alkenyl, C_2-C_6 alkynyl or C_3-C_6 cycloalkyl, each optionally substituted;

R^3 is H; or C_1-C_6 alkyl, C_2-C_6 alkenyl, C_2-C_6 alkynyl, C_3-C_6 cycloalkyl, C_2-C_{10} alkoxyalkyl, C_2-C_6 alkylcarbonyl, C_2-C_6 alkoxycarbonyl, C_2-C_6 alkylaminocarbonyl or C_3-C_8 dialkylaminocarbonyl; and

n is 1 or 2; and

(b) a compound acting at the *bc*$_1$ complex of the fungal mitochondrial respiratory electron transfer site; and optionally at least one compound selected from the group consisting of (b1), (b3)-(b9).

Applicant elected the compound of claim 17 (2,6-dichloro-N-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide) as a species of component (a), famoxadone as a species of component (b2), and metalaxyl as a species of component (b6) in the reply filed on October 20, 2008.

Moloney discloses compounds that are phytopathogenic fungicides with the same structure as formula I of the instant application. Formula I of Moloney has substituents that are included in part (a) of Formula I of the instant application (Col. 1, lines 7-50). Component (a) of Formula 1, as disclosed in instant claim 17, is 2,6-dichloro-N-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide, is disclosed by Moloney in Col. 9, Table 1, Compound 21.

Moloney does not expressly teach component (b2) a compound acting at the bc_1 complex of the fungal mitochondrial respiratory electron transfer site, or component (b6) a phenylamide fungicide.

Bereznak teaches fungicidal pyrimidinones. An example of an "agricultural protectant" is 5-methyl-5-(4-phenoxyphenyl)-3-phenylamino-2, 4-oxazolidinedione (Col. 69, lines 61-63). This compound can be mixed with fungicidal pyrimidinones "for better control of plant diseases caused by fungal plant pathogens" (Col. 69, lines 51-52). This compound is famoxadone. Bereznak also teaches metalaxyl as fungicides that can be mixed with one or more other fungicides for an even broader spectrum of agricultural protection (Col. 68, lines 57-64 and Col. 69, lines 26 and 60).

As Jordan teaches, famoxadone is an inhibitor of "mitochondrial electron transport, specifically inhibiting the function of the enzyme ubiquinol:cytochrome c oxidoreductase (cytochrome bc_1) (Abstract). Jordan also teaches that metalaxyl is a known fungicide (Page 112, left hand column, under 3.1 Early mode of action studies on fungicide 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use 2,6-dichloro-N-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide, as disclosed by Moloney, and combine it with the "agricultural protectant" famoxadone (5-methyl-5-(4-phenoxyphenyl)-3-phenylamino-2, 4-oxazolidinedione) and the fungicide metalaxyl, as taught by Bereznak and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because the composition of formula I(a) as taught by Moloney, can include additional active ingredients such as compounds with fungicidal properties (Moloney, Col. 3, lines 29-32). Metalaxyl is a known fungicide, as evidenced by Bereznak (Col. 68, lines 57-64 and Col. 69, lines 26 and 60) and Jordan (Page 112, left hand column, under 3.1 Early mode of action studies on fungicide 1). Furthermore, Bereznak also teaches the advantage of combining compounds with fungicidal properties as having "an even broader spectrum of agricultural protection" (Col. 68, lines 58-64).

Regarding instant claims 1-2, 4-7, 17, and 29-30, the composition comprising components (a), (b2), and (b6) would have been obvious over the 2,6-dichloro-N-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide (component (a)), as disclosed by Moloney (Col. 9, Table 1, Compound 21), in view of the combination of this component with an "agricultural protectant" famoxadone (5-methyl-5-(4-phenoxyphenyl)-3-phenylamino-2, 4-oxazolidinedione), and the fungicide metalaxyl, as taught by Bereznak (Col. 69, lines 26, 51-52, and 60-63, Col. 68, lines 57-64).

Regarding instant claims 7 and 31, the limitations of the weight ratio of component (b) to component (a) that is from 30:1 to 1:30, the weight ratio of component (b2) to component (a) that is from 10:1 to 1:1, and the weight ration of 2,6-dichloro-N-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide (component (a)) to famoxadone (component (b2)) would have been obvious to one with ordinary skill in the art because during the process of routine experimentation, titration of various levels of components would be carried out in order to optimize the efficacy of the composition in controlling fungal pathogens in plants.

Response to Arguments

10. Applicant's arguments, see Page 3, filed 05/12/10, with respect to the rejection of claims 1, 2, 4-7, 17, and 29-31 under 35 U.S.C. 103(a) as being unpatentable over Moloney et al. (US 6,503,933) in view of Bereznak et al. (US 6,066,638), and further in view of Jordan et al. (Pesticide science 55:105-118 (1999) have been fully considered but are not persuasive.

Applicant argues that "… Col. 68, line 58 to Col. 70, line 39 of Bereznak et al. does not suggest combining famoxadone (or any other (b2) compound) or metalaxyl (or any other (b6) compound) with a component (a) compound; and that instead this disclosure is limited to a discussion of combinations including certain fungicidal fused-ring pyrimidinones that are not structurally related to component (a) compounds of the present invention that include both a substituted pyridinyl ring and a substituted phenyl ring that are structurally separated from each other." Applicant argues that Moloney et

al. does not disclose or suggest that combinations with (b2) compounds will provide advantageous results as disclosed by Applicants.

This is not persuasive because the advantageous results would be expected from the combination of Moloney and Bereznak because Bereznak teaches the advantage of combining compounds with fungicidal properties as having "an even broader spectrum of agricultural protection" (Col. 68, lines 58-64).

Applicant argues that it is the present specification (and not Moloney et al. and/or Bereznak et al.) that illustrates that component (a) compounds can be combined with component (b2) compounds to give unexpected results for the treatment of *Phytophthora infestans* (see Table A).

This is not persuasive because one of ordinary skill in the art would find it obvious to combine different compounds having fungicidal properties and expect effective fungicidal activity.

Applicant argues that neither Moloney et al. nor Bereznak et al. disclose or suggest synergistic combination of famoxadone with 2,6-dichloro-N-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide in a manner illustrated by Applicants in the present application. Applicant argues that the disclosure of Bereznak et al. is limited to a discussion of combinations including certain fungicidal fused-ring pyrimidinones that are not structurally related to component (a) compounds of the present invention that include both a substituted pyridinyl ring and a substituted phenyl ring that are structurally separated from each other.

This is not persuasive because Applicant has not provided any evidence regarding the synergistic combination of famoxadone with 2,6-dichloro-N-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide.

MPEP 2145 states that: "The arguments of counsel cannot take the place of evidence in the record."

Furthermore, MPEP 716.02(a) states that: "Applicants must further show that the results were greater than those which would have been expected from the prior art to an unobvious extent, and that the results are of a significant, practical advantage."

Based on the lack of evidence of unexpected results or synergistic combination of famoxadone with 2,6-dichloro-N-[[3-chloro-5- (trifluoromethyl)-2-pyridinyl]methyl]benzamide, it would have been obvious to one of ordinary skill in the art to combine famoxadone with 2,6-dichloro-N-[[3-chloro-5- (trifluoromethyl)-2-pyridinyl]methyl]benzamide and produce an effective fungicidal composition.

Therefore, the rejection of 11/12/09 is maintained.

Conclusion

11. No claims are allowed.

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aradhana Sasan whose telephone number is (571) 272-9022. The examiner can normally be reached Monday to Thursday from 6:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert A. Wax, can be reached at 571-272-0623. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Aradhana Sasan/
Examiner, Art Unit 1615

/Robert A. Wax/
Supervisory Patent Examiner
Art Unit 1615